

ABSTRACT OF THE DISCLOSURE

A cholesteric liquid crystal display with gray scales is disclosed which includes a substrate, a patterned first conductor disposed over the substrate, and a layer including a cholesteric liquid crystal material dispersed over the first
5 patterned conductor. The display further includes a patterned second conductor disposed over the layer including cholesteric liquid crystal, and control means for applying voltages across particular portions of the patterned first and second conductors to cause electric fields to portions of the cholesteric liquid crystal layer to directly change its reflectance into a plurality of reflectance. The gray scale of
10 the display can be obtained by a single pulse voltage independent of the initial state of the said display.